

**Notice of Allowability**

Application No.

10/825,216

Examiner

Seyed Azarian

Applicant(s)

AMICO ET AL.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/13/2007 and fax inquiry filed August 13, 2007.
2. ☒ The allowed claim(s) is/are 1-3, 59-61, 64-66, 69-74, 80-81, 84-85 and 88-89, now renumbered as 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **Response to Amendment**

1. Based on applicant's amendment, filed 7/13/2007, see page 26 through 29 of the remarks, also telephone interview and fax inquiry filed on August 13, with respect to cancellation of claims 57-58, 62-63, 67-68, 75-79, 82-83, 86-87, 90-101, and amended claims 1-3 and 72-74, have been fully considered and are persuasive, upon further consideration the rejection of 103(a) and 35 USC 112 rejection, for claims 1-3, 59-61, 64-66, 69-74, 80-81, 84-85 and 88-89, are hereby withdrawn.

The claims 1-3, 59-61, 64-66, 69-74, 80-81, 84-85 and 88-89, now renumbered as 1-21 are allowed.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicants Attorney (Joe N. Bock, Reg No. 36,456), on August 13, 2007, without traverse.

**The amended claims 1-3 and 72-74 as follows:**

**Cancel claims 57-58, 62-63, 67-68, 75-79, 82-83, 86-87 and 90-101.**

Claim 1. (Currently Amended) A method of digitizing shapes, said method comprising:  
receiving at least one data representing at least one shape;

identifying at least one outline of the at least one shape in the at least one data, wherein  
the outline has a curvature;

identifying at least one corner of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value; and

identifying at least one notch of the at least one outline wherein said notch, is identified by ~~determining a plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value ~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least one outline.~~

Claim 2. (Currently Amended) A system for digitizing shape, shapes, said system comprising:

a memory arrangement including thereon a computer program: and

a processing arrangement which, when executing the computer program is configured to: receive at least one data representing at least one shape;

identify at least one outline of the a least one shape in the at least one data, wherein the outline has a curvature;

identifying at least one corner having a relatively large average curvature of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value; and

identifying at least one notch of the at least one outline wherein said notch, is

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identified by determining ~~a plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value ~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least on outline.~~

Claim 3. (Currently Amended) Software stored in a computer-readable storage medium which, when executed by a processing arrangement, is configured to digitize shapes, said software storage medium comprising:

a software program including:

a first module which, when executed, receives at least one data representing at least one shape;

a second module which, when executed, identifies at least one outline of the at least one shape in the at least one data, wherein the outline has a curvature;

a third module which, when executed, identifies at least one corner having a relatively large average curvature of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value; ~~and~~

~~a fourth module which, when executed, and~~ identifies at least one notch of the at least one outline wherein said notch is identified by determining ~~a plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn

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point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value ~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least on outline.~~

Claim 72. (Currently Amended) A method of digitizing shapes, said method comprising:  
receiving at least one data representing at least one shape;  
identifying at least one outline of the at least one shape in the at least one data; and  
identifying at least one notch of the at least one outline wherein said notch is identified by  
determining ~~a plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value ~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least on outline.~~

Claim 73. (Currently Amended) A system for digitizing shapes, said system comprising:  
a memory arrangement including thereon a computer program; and  
a processing arrangement which, when executing the computer program is configured to:  
receive at least one data representing at least one shape;  
identify at least one outline of the at least one shape in the at least one data; and  
identify at least one notch of the at least one outline wherein said notch is  
identified by determining ~~a plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value

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~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least one outline.~~

Claim 74. (Currently Amended) Software stored in a computer-readable storage medium which, when executed by a processing arrangement, is configured to digitize shapes, said software storage medium comprising:

a software program including:

a first module which, when executed, receives at least one data representing at least one shape;

a second module which, when executed, identifies at least one outline of the at least one shape in the at least one data; and

a third module which, when executed, identifies at least one notch of the at least one outline wherein said notch is identified by determining ~~a plurality of curvatures, wherein each of the plurality of~~ at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point, and the third turn point is less than a predetermined maximum value and at least a predetermined minimum value ~~curvatures, wherein each of the plurality of curvatures is in a neighborhood of a point on the at least one outline.~~

### REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance.

This invention relates generally, to garment design and manufacturing and more particularly relates to a system and method for automatically digitizing a garment pattern and the garment industry specific elements within it.

Based on applicant's amendment, claim 1 representing claims 2, 3, and 72-74, the closest prior art of record (Ishikawa and Bankart) references teaches, pattern scanner for detecting outer and inner boundaries and analyses the information such as grain direction, but do not teach or suggest, among other things, "identifying at least one corner of the at least one outline wherein corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value, and identifying at least one notch of the at least one outline wherein said notch, is identified by determining a plurality of at least three turn points on the outline, including a first turn point followed in a first direction by a second turn point and followed in a second direction by a third turn point, wherein the distance between the first turn point and the third turn points is less than a predetermined maximum value and at least a predetermined minimum".

These key features in combination with the other features of the claimed invention are neither taught nor suggested by (Ishikawa and Bankart) prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Contact Information**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (571) 272-7443. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Status information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Seyed Azarian*  
*Patent Examiner*  
*Group Art Unit 2624*  
August 14, 2007

A handwritten signature in cursive script that reads "Seyed Azarian".